

### REMARKS

Entry of the foregoing and reconsideration of the application identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.111 and in light of the remarks which follow, are respectfully requested.

By the above amendments, claim 15 has been amended for readability purposes, and to recite that the composition based on a thermoplastic matrix comprises a polyamide. Support for such amendment can be found in the instant specification at least at pages 6-7, and the examples. Claims 23-25 have been amended in view of the above amendments to claim 15. New dependent claims 33 and 34 have been added which depend from claim 15, and recite that the composition comprises from 1 to 7% by weight of compound F3, and from 1 to 5% by weight of compound F3, respectively, with respect to the total weight of the composition. Support for such new claims can be found in the instant specification at least at page 4, lines 1-3, taken in connection with pages 14-15, Table 1. Support for new dependent claim 35 can be found in the instant specification at least at page 6, line 9.

In the Official Action, claims 15, 20-26 and 30-32 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,255,371 (*Schlosser et al*) in view of U.S. Patent Application Publication No. 2002/0151625 (*Yakabe et al*). Claims 28 and 29 stand rejected under 35 U.S.C. §103(a) as being obvious over *Schlosser et al* and *Yakabe et al*, and in view of Hawley's Condensed Chemical Dictionary (*Lewis*) and U.S. Patent No. 3,865,760 (*Pitts et al*). Claim 27 stands rejected under 35 U.S.C. §103(a) as being obvious over *Schlosser et al* and *Yakabe et al*, and in view of U.S. Patent No. 6,433,045 (*Hanabusa et al*). Withdrawal of the above rejections is respectfully requested for at least the following reasons.

As acknowledged by the Patent Office at pages 9 and 10 of the Official Action, *Schlosser et al* does not disclose that the composition comprises from 2 to 10% by weight of compound F2, and from 1 to 10% by weight of compound F3, with respect to the total weight of the composition. By comparison, *Schlosser et al* discloses a weight percentage of the **total** component B content. *Schlosser et al* fails to have any recognition or suggestion of the specific ranges of components F2 and F3 individually, as presently claimed. Nor does *Schlosser et al* teach or suggest the significance of employing specific amounts of compounds F2 and F3. All that is disclosed in this regard are compounds belonging to component B, and a weight percentage with respect to the total component B content. A fair reading of *Schlosser et al* yields no teaching or suggestion of the significance of employing the claimed range of F2 and the claimed range of F3.

Applicants have discovered that by employing compound F3, for example, within the presently claimed range, an improved resistance to forming a flame following the application of a glow wire in accordance with a GWIT test (as discussed at pages 13-14 of the instant specification) can be attained. The applied art has no recognition or suggestion of the result-effective relationship between the compound F3 content and the GWIT characteristics. See M.P.E.P. §2144.05II.B.

In this regard, *Schlosser et al* is concerned with obtaining a good rating under the UL 94 test. As discussed in the specification, the GWIT test is distinct from the UL 94 test, **and a composition exhibiting good UL 94 characteristics does not necessarily exhibit good GWIT characteristics**. Whereas the UL 94 test measures the resistance to flammability only, the GWIT test measures the resistance to forming a flame as a result of the application of an incandescent wire according to IEC 60695-2-13 on specimens. A specimen successfully passes the test when no

ignition occurs due to use of an incandescent wire, and fails the test when an inflammation occurs, according to the predetermined temperature of incandescent wire. Applicants note that this flame resistant property is specific and can be required for certain applications such as, for example, for certain appliances and household tools. The fact that a composition exhibiting good UL 94 characteristics does not necessarily exhibit good GWIT characteristics can be seen from the experimental data set forth in Table 1 at pages 14-15 of the specification. *Schlosser et al* has no recognition or suggestion of the result-effective relationship between the compound F3 content and the GWIT characteristics and as such, it would not have been obvious to optimize *Schlosser et al* to arrive at the claimed compound F3 range.

Further, Applicants submit that the experimental data set forth in Table 1 of the specification show the **surprising** and **unexpected** results attainable by employing the claimed compound F3 content. Concerning such experimental data, the Examiner has noted that the inventive examples employ polyamine compositions. See Official Action at pages 10-11. As noted above, claim 15 has been amended to recite that the thermoplastic matrix comprises a polyamide. The Examiner has also alleged that Example 1 is the only appropriate side by side comparison with Comparative Example A. See Official Action at page 10. Respectfully, Applicants submit that in Examples 2 to 4, the percentages of compounds F1 and F2 varied as a result of the varied amounts of compound F3 and PA 66. The amounts of F1, F2 and PA 66 were varied to maintain the overall percentages of such components within comparable levels, while varying the amount of compound F3. Specifically, while Examples 2 to 4 do not employ identical amounts of F1 and F2 to Comparative Example A, the amounts of compound F1 employed in Examples 2 to 4 are within  $\pm 1.5\%$  of the amount employed in Comparative Example A, and the amounts of compound F2 employed in Examples 2 to 4 are within

±1% of the amount employed in Comparative Example A. The experimental data shows the surprising and unexpected results attainable by employing compound F3 within the claimed range.

The secondary applied art fails to cure the above-described deficiencies of *Schlosser et al.* Moreover, as noted above, surprising and unexpected results are attainable by employing the claimed compound F3 range.

For at least the above reasons, Applicants respectfully but strenuously submit that independent claim 15 is non-obvious over the applied art.

The dependent claims are allowable at least by virtue of their direct or indirect dependence from independent claim 15. Thus, a detailed discussion of the additional distinguishing features recited in the dependent claims is not set forth at this time.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.


The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: June 20, 2011

By: \_\_\_\_\_



Roger H. Lee  
Registration No. 46317

**Customer No. 21839**  
703 836 6620